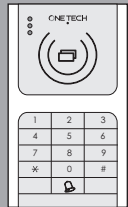


Integrated Access Controller

User Manual

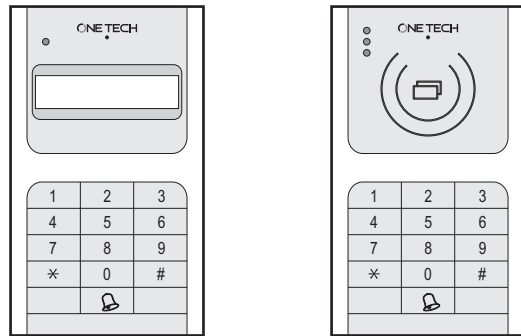


2D-QG8920

Read the manual before usage and keep for future reference.



1. Model and Appearance



2D-QG8920

2D-DG8930

- 1.1 Structure and Appearance design of 2D-QG8920 and 2D-DG8930 are patented and any sort/form of copy and counterfeit will be charged.
- 1.2 Color: pure black, black decorated with silver
- 1.3 Size: L×W×H (mm): 150×88×30

2. Important Notices

Failure to follow the instructions below may lead to the malfunction of the system, property damage and even physical injury.

- 2.1 Connection and operation on any components or the controller with power on is strictly prohibited.
- 2.2 Connect the system according to the instructions described in this manual.
- 2.3 The RS232 cable connected to the computer should be no more than 15 meters.
- 2.4 The RS485 cable connected to the computer should be no more than 1200m.
- 2.5 Please use the specified power supply.
- 2.6 The communication mode between the controller and computer should be either RS232 or RS485.



- 2.7 When RS485 mode is applied, a highway can connect maximally 32 controllers with identification address differs from each other.

3. Product Parameters

- 3.1 Electric Parameters
 - Working Voltage: DC9-15V
 - Static Current: ≤110mA
 - Input Interface: Stem joint switch input
 - Working Temperature: -10℃ to 55℃
 - Drive Capability: 2 groups of Type C Relay output, DC12V/3A
 - Power-off Protection: Data will be preserved for 10 years when power off
- 3.2 Type of Card : EM card or compatible EM Card
- 3.3 I/O Interface: 2 groups of switch input, 1 group anti-disassemble alarm input, 1 exterior card interface, 2 groups of output interfaces, DC12/3A
- 3.4 Network Interface: RS232/RS485 interface
 - Communication Rate: 9600bps
- 3.5 System Capacity and Main Functions
 - Number of Card Holder: 3000
 - Number of Records: 8200 pcs Entrance/Exit Mode:
 - Card alone
 - Card plus Password
 - Password alone
 - Initial Card Open
 - Multiple Card Open (2≤N≤4)
 - Remote Open
 - Forced Open

Multiple and programmable working modes:

- Normal Open
- Forced Close
- Identification after Card-presenting (Door will be opened only after the card holder is identified by the control center)
- Anti-passback function

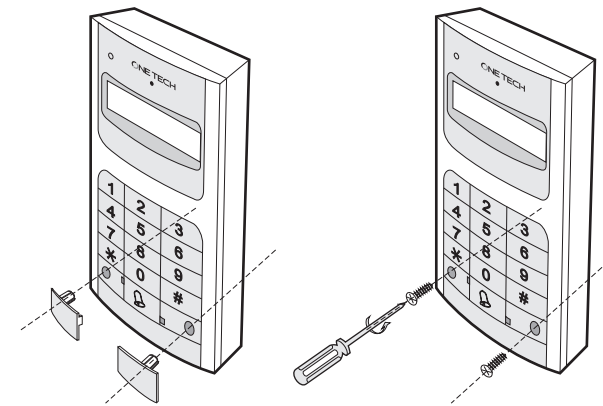
Multiple access group and working hour setup

- Every controller supports 42 access groups
- Support 20 groups of schedule
- Support 32 groups of annual holiday setup

Protection

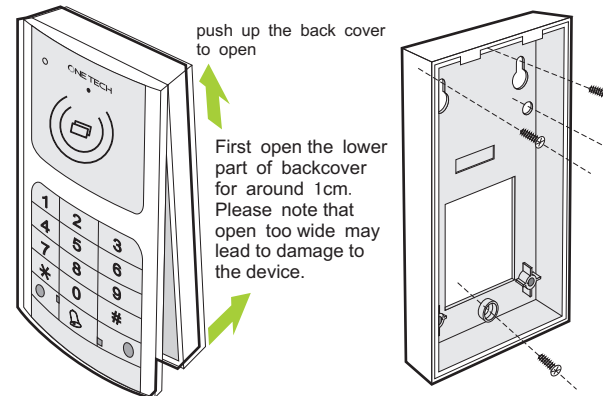
- All inputs are equipped with advanced TVS protection
- Voltage clamp protection
- All outputs adopt spark depress circuit and absorption circuit
- Four-layer PCB structures enhances anti-EMI capability

4. Installation Instruction



4.1 Remove the two keys first.

4.2 Unfasten the two screws.

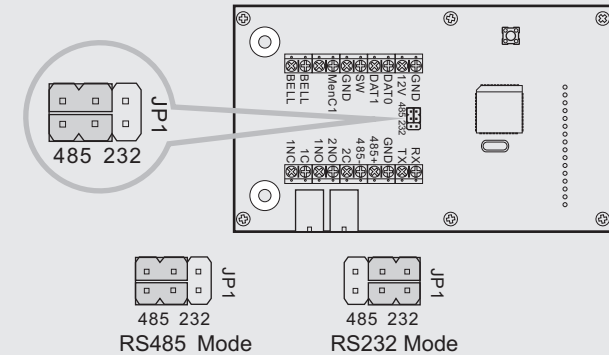


4.3 Open the back cover and connect the device according to the wiring diagram.

4.4 Fix the backcover on the wall and reassemble the device. (according to 4.1, 4.2 and 4.3 in reversed order)

5. Communication Mode Setup

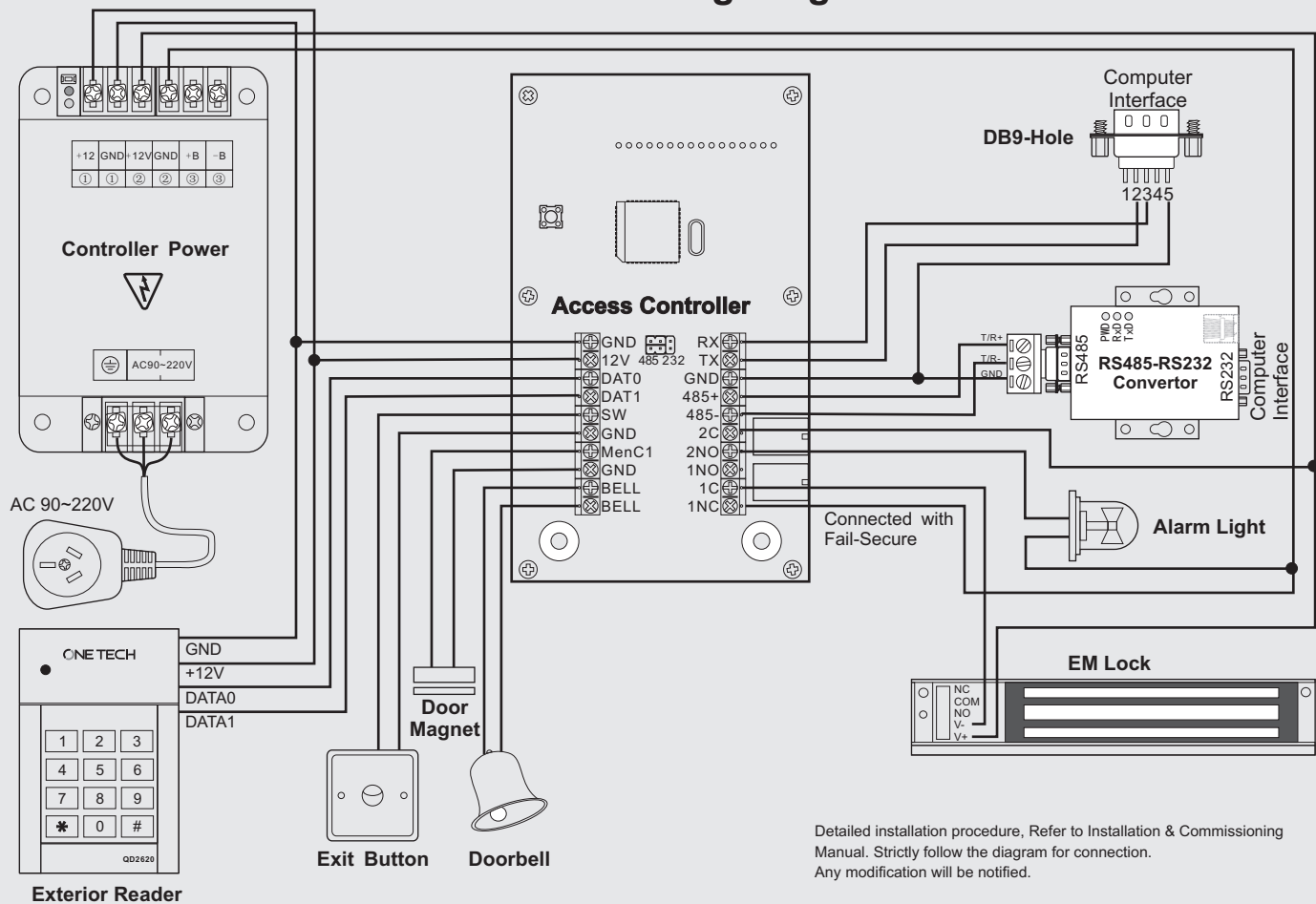
Change the communication mode with computer by changing the jumper-wire in jumper JP1



6. Rules for Installation

- 6.1 Selection of exterior components may be based on installation environment. However, the selection should be in accordance to existing National and International Standards as well as matched with the controller. A careful study on the instructions on exterior components selection is strongly advised.
- 6.2 Installation of the control unit (including microprocessor) should not be inside the high-voltage box or near any large converter or high voltage/current devices. The components should be installed in places easy for uninstallation in order for convenient maintenance.
- 6.3 The controller board should be connected to earth independently. Please ensure that grounding has been provided in the installation site.
- 6.4 When installing the box with microprocessors inside, please ensure that the screw and lock has been fastened.
- 6.5 The 220V terminal power cable should be plugged in separate power supply socket (the power cable should not share the socket with other devices) with grounding ensured.
- 6.6 Do not crossover the system cables through other devices.
- 6.7 All components should not be installed in places with excess high/low temperature or humidity.

Controller Wiring Diagram



7. Instruction for Keypad Function

Sound Indication:

One sound means correct input, continuously sound twice means error or exit.

Light Indication:

Blue light is for power, green for valid, yellow for Edit, yellow flash for "Waiting to input password", and yellow light on for "Editing status entered"

Keypad Edit:

Wait for 6 seconds after inputting password/card+password

7.1 Enter/Exit Edit mode

Push "*", yellow light flashes=>input administrator password, yellow light on, Edit status entered. (Default administrator password is "000000"). If password is not inputted or wrongly inputted within 20s, sound twice and exit Edit status, orange light off and blue light on). Push "#" to exit Edit status.

7.2 Basic setup

Basic setup includes: system initiation, address setup, anti-disassemble alarm setup, door-open setup.

7.2.1 System Initiation

System initiation will clear all original setup of the controller (including pass mode setup, basic setup, all keypad-added card, password etc. however, administrator setup will not be changed).

Edit → input 11 → wait for 3 second, blue light on, exit Edit status

7.2.2 Setup address

Address is applied to differentiate the controller from any other devices on the network. An address within a single 485 network should be unique.

Edit → input 12 → input address e.g. 29 (range 00-39)

exit Edit, address is set as 29

7.2.3 Anti-disassemble alarm setup

Anti-disassemble alarm is applied to protect controller from being disassembled or damaged.

Edit → input 14 → input Edit code(00: cancel alarm, 01 initiate alarm)

exit Edit status

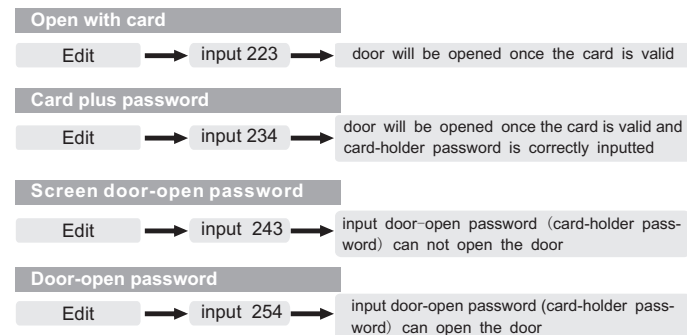
7.2.4 Door-open Setup

Edit → input 21 → input door-open duration (range 00-99 second)

exit Edit

7.3 Pass Mode Setup

This function is used to define the mode of pass, including three modes: card, card plus password and password. For card+password and password mode, the door-open password and card-holder password are the same

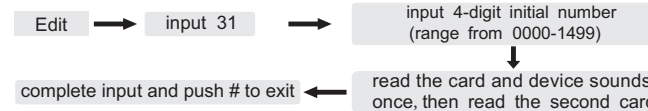


7.4 Off-line user management

his function enables the user to manage card-holders by the integrated access controller without connecting to computer. Max. 1500 cards/card-holders can be managed in Off-line manage mode. There is no conflict between off-line cards and cards read by computer. The off-line card possesses top authority and is not affected by such functions as multiple card, initial card, remote control, anti-passback and access level.

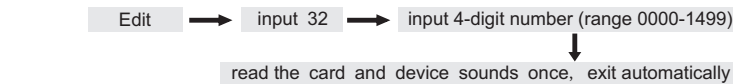
7.4.1 Add multiple cards

A number of cards can be registered in the device, with a designated first number. The second card will be assigned with a number next to the number designated to the first card. This continues until user exits the function automatically or manually.



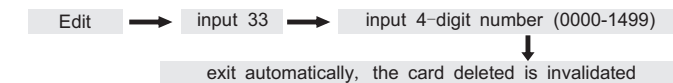
7.4.2 Add single card

User can designate a certain number to a card. Only one card can be designated in one time. If the number has been designated to other card before, the newly designated card will overwrite the original card (the one with this number before).



7.4.3 Delete one card

User can invalidate a card by delete the card number registered in the controller. Only one card can be deleted in one time.



7.4.4 Delete All Cards

This function will invalidate all the keypad-registered cards; similarly, initiation will also clear all cards. Please be warned for applying this function.

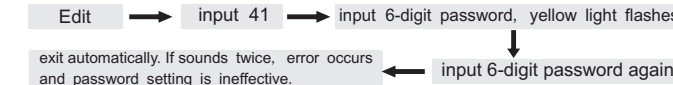


7.5 Password management

Password management refers to the management of administrator password and card-holder password. Administrator password is used to enter Edit status. Card-holder password is used to open the door in the password or card+password door-open mode.

7.5.1 Set card-holder password

Card-holder password can be applied in both the password and the card+password door-open mode. In the "Screen Door-open Password" mode, password only is ineffective for opening door.



7.5.2 Set administrator password

Default administrator password is 000000. If a number has been designated to other card before, the newly designated card will overwrite the original card (the one with this number before).

